

Product Innovation

New solutions to old problems

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Product innovation at UNICEF is about turning ideas into tangible and scalable solutions.

It involves the identification, development and scaling of fit-for-purpose and value-for-money products that respond to the unmet needs of children.

By working with field partners and programmatic experts to understand those needs, businesses and academia to develop products that meet those needs, and programming partners and donors to bring the products to scale, product innovation at UNICEF is having a tremendous impact for children.

Product Innovation Portfolio

UNICEF is managing a portfolio of Product Innovation Projects (PIPs) that respond to the needs outlined in UNICEF's strategic programme areas, including child survival, child protection, education, and emergencies. The current portfolio includes a variety of PIPs and is constantly changing with new projects emerging and others leaving the innovation process once they are fully scaled or closed because they had not fulfilled the desired impact.

INNOVATION PORTFOLIO

8 HEALTH

- Oxygen Plant-in-a-Box
- Resilient Oxygen Concentrator
- Multi-modal ARIDA
- CPAP for Low-resource Settings
- Non-pneumatic Anti-shock Garment (NASG)
- Uterine Balloon Tamponade
- Vaccine Microarray Patches (VMAPs)
- MindMe: A Kit to Support Positive Mental Health

3 NUTRITION

- Digi-Board: Height Measurement Device
- Complementary Feeding Bowl and Spoon
- Project Play: Repurposing Packaging into Toys

2 EMERGENCY

- High Performance Tents
- Health Emergency Facility

3 ASSISTIVE TECHNOLOGY

- Appropriate Wheelchairs
- Hearing Aids
- App Catalogue

3 WASH

- Disability-friendly Latrine Slab Add-on
- Rapid Water Quality Testing

The Product Innovation Process

There are five phases that govern UNICEF's product innovation process: Exploration, Need, Research and Development (R&D), Validation and Transition to Scale. UNICEF actively engages in the initial and final phases whereas R&D is generally undertaken by industry with UNICEF driving the process.

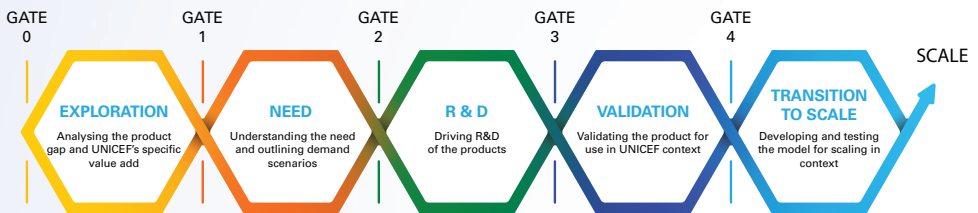
R&D is not always required

if a quality product already exists on the market. In which case the PIP can move directly to Validation to conduct field trials to verify if it is fit for programming.

However, if a product does not exist, UNICEF will develop a Target Product Profile to communicate the specific needs to developers while considering the unique contexts in which UNICEF and

its partners operate.

Projects live in one of the five phases and can pass through a gate to another phase when they receive approval from UNICEF's Innovation Review Board. The board meets monthly to review project submissions and decide if to advance a project through the next phase, suggest more work is required in the phase, or close a project.



Non-pneumatic Anti-shock Garment (NASG)

Phase: Transition to Scale



The NASG demonstrates that sometimes we don't always need to innovate – we can take a proven life-saving innovation and focus on ensuring it is available and accessible for those who need it most. The NASG is a low-cost first-aid compression suit that limits persistent postpartum hemorrhaging in new mothers, originally designed with NASA

technology. UNICEF didn't invent the NASG nor was it part of the product's development. However, UNICEF noticed that this technology wasn't reaching coverage at scale, so is using its know-how capacity in scaling proven technologies to ensure a quality product is available and accessible in locations where it would be most effective.

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High Performance Tents Phase: Transition to Scale

This project demonstrates the benefits of working through a co-creation process with industry partners when developing high quality products. Multipurpose tents are used in emergencies to provide essential services in education, health, nutrition, and child protection. To ensure the new tents would meet programmatic needs, UNICEF and manufacturers travelled to Afghanistan for testing in cold climates, the Philippines for hot and humid climates, and Uganda for hot and dry climates, in addition to laboratory testing in a wind tunnel to see how the tents performed in below-freezing temperatures and hurricane level winds.



“Our classroom is no longer hot under the sun. I’m now very happy,” says Rasid, 12, who was displaced from his home by typhoons in the Philippines. The new tents keep classrooms cool so children can focus on their education.



Complementary Feeding Bowl

Phase: Need



The Complementary Feeding Bowl demonstrates the importance of frugal innovations. It’s just a simple bowl - or is it? UNICEF is working with manufacturers to develop a solution for combatting malnutrition in young children. With poor quality diets driving malnutrition and almost half of all children not eating a balanced diet, a practical solution is needed to ensure families continue good

nutrition practices at home. The project focuses on two products: a complementary feeding bowl with nutritional diversity and handwashing messages to address food quality, and indications for age group to address food quantity; and a slotted spoon to ensure that the first semi-solid food after exclusive breastfeeding is the right consistency (i.e. energy-dense, not watered down).

UNICEF's Role in Product Innovation

UNICEF's expertise is in understanding the needs of children at a global level and driving scale through programming. The organization does not develop new products. Which is why, during the R&D process, UNICEF leans on its partnerships with businesses and academia to leverage the comparative strengths of different organizations. As such, UNICEF's product innovation strategy is based on how to best leverage the unique power of UNICEF.

KEY FIGURES

(since 2013)

- 26** TPPs launched
(16 in partnership with NEST360° on newborn care)
- 43** Field trials conducted
(individual trials per country)
- 63** New products included or updated in the UNICEF Supply Catalogue
- 29** PIPs currently active
- 04** PIPs successfully handed over to operations, now in full scale
- 14** PIPs terminated based on solid analyses that otherwise would have increased costs to UNICEF & partners to continue.

WHY UNICEF?

With over 70 years of delivering life-saving products to millions of children worldwide, UNICEF is uniquely positioned to be a leader in innovating for children.

In 2020, UNICEF procured nearly US\$4.5 billion in supplies and services, empowering the organization to drive businesses to invest in the development of quality products. UNICEF also brings strength in programming as the leading humanitarian

and development agency working globally for the rights of children where the organization can drive scale through its respected relationships with local governments.

This global status - both in procurement and

programming - gives UNICEF the ability to negotiate with industry to develop the best-of-the-best products for children at an affordable price for programming.

UNICEF Product Innovation

[unicef.org/innovation/productinnovation](https://www.unicef.org/innovation/productinnovation)

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